

DIVISION 9 FINISHES

SECTION 09960 HIGH PERFORMANCE COATINGS

PART 1 - GENERAL

1.1 SUMMARY

A. This Section Includes:

1. The cleaning and removal of all existing dirt, loose paint, and latent salts off the colonnade base dado, and consoles at the base of the rotunda colonnade.
2. Complete removal of existing failed waterproof coating from the wash at the base of the rotunda colonnade to bare metal.
3. Preparation of surfaces.
4. Installation of new high-performance, mold-resistant, waterproof coating over the colonnade base dado, consoles, and wash at the base of the rotunda colonnade.

B. Scope: Provide all materials, labor, equipment, and appliances required to complete work of this Section, including, but not necessarily limited to, the following:

1. Furnish all materials, labor, tools, equipment and services necessary for the preparation of the substrate and the application of a high performance, mold-resistant, waterproof coating as indicated by the drawings and these specifications.

C. Related Work: The following work of similar nature is specified in other sections:

1. Section 07900 Sealants.

1.2 SUBMITTALS

- A. Submit product data in accordance with the procedures set forth in Division 1
- B. Submit Material Safety Data Sheets (MSDS) for each product to be utilized in the work prior to commencement of on-site work.
- C. Submit warranty upon acceptance of work.

1.3 QUALITY ASSURANCE

- A. The Contractor shall be experienced in power washing, cleaning of metal surfaces, and application of high-performance exterior coatings.
- B. The manufacturer shall be experienced in exterior sealers and waterproof coatings. This shall be demonstrated by providing proof of producing concrete repair and protection products for a minimum of ten years. Manufacturers that do not comply with the ISO 9000 quality standard in the development, manufacturing, and sale of their products shall not be acceptable.
- C. The Contractor shall schedule a site meeting with a representative of the product manufacturer prior to commencement of work.
- D. Deliver products in original, unopened containers with the manufacturer's name, labels, product identification, and batch numbers. Store and condition the product in full compliance with the manufacturer's recommendations.
- E. The Contractor shall supply a complete warranty for workmanship for one year commencing with the date of acceptance of work. The manufacturer shall supply a complete warranty for materials for twenty years commencing with the date of acceptance of work.

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PART 2 - PRODUCTS

2.1 MATERIALS

- A. The specified system has been selected to establish a minimum standard of quality that will be accepted. The listing of the product is not intended to limit competition, but to establish the standard of quality. Proposed substitutions must be submitted, and shall conform to the standard of quality, as established in these specifications.
- B. Pressure washing Additive: Liquid soluble salt remover shall be a concentrate added to water and used as a wash solution to remove soluble salts from a variety of surfaces, including ferrous and non-ferrous metals, concrete, wood, plastics and others. The liquid soluble salt remover shall be as recommended by the manufacturer of the coating furnished and shall meet the following minimum requirements:
1. VOC: None
 2. PH: 3.3(+/- .2)
 3. Application temperature: 33 degrees F to 250 degrees F
 4. Components: Single Component
- C. Penetrating Primer: Shall be water-based, clear, non-toxic, zero VOC, primer that penetrates and seals damaged paint. The primer shall provide a clear protective membrane with low temperature flexibility. The primer shall contain a multi-surface rust inhibitor. The primer shall meet or exceed the following minimum requirements:
1. When used with elastomeric protective coating, shall pass ASTM E1795-97.
 2. Elongation of 4000% at 70 degrees F.
 3. Cohesion-Adhesion over 300psi when tested in accordance with ASTM E736-93
 4. Zero VOC per ASTM D-3960.
 5. .6 perms per ASTM D-1653.
 6. 45% +/- 5% solids by volume.
 7. Recoat time 1 to 24 hours.
- D. Intermediate Sealer Coat: Shall be Class-A, water-based, high-solids, non-toxic, flexible, low VOC, acrylic coating that bonds to the penetrating primer to form a tough, seamless, flexible protective enclosure. Intermediate Sealer Coat shall meet or exceed the following minimum requirements:
1. When used with penetrating primer, shall pass ASTM E1795-97.
 2. Must pass ASTM D-3273/D-3274, mold resistance.
 3. Tensile Strength of 300 psi after 2 weeks per ASTM D-412
 4. Cohesion-Adhesion over 330psi when tested in accordance with ASTM E736-93
 5. .4 lbs per gallon VOC per ASTM D-3960.
 6. .6 perms per ASTM D-1653.
 7. 54% +/- 5% solids by volume.
 8. Drying time at 75 degrees F shall be ½ hour to touch and recoat after 4 hours.
- E. Top Sealer Coat: Shall be Class-A, water-based, gloss, high-solids, non-toxic, single-component, flexible, low VOC, acrylic coating that bonds to the intermediate sealer coat to form a tough, seamless, flexible protective enclosure. Color shall match the existing adjacent painted surfaces. Top Sealer Coat shall meet or exceed the following minimum requirements:

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1. Must exceed ASTM standards for Salt Fog, Weathering Aging, Humidity, and Chemical and Water Resistance.
 2. Must pass ASTM D-3273/D-3274, mold resistance.
 3. .8 lbs per gallon VOC per ASTM D-3960.
 4. 56% +/- 5% solids by volume.
- F. Water Repellant Overcoat/Penetrating Oil and Water Repellant: Shall be clear, water-based, odorless, zero VOC, penetrating oil and water repellant compatible with the waterproof coating and as recommended by coating manufacturer.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Colonnade Dado and Consoles: Remove all existing loose paint, grease, oils, dirt, and soluble salts and the like by pressure washing using approximately 3,500psi water with addition of 3% pressure washing additive by volume or as otherwise recommended by the additive manufacturer. The removal of existing paint to bare metal is not required. Substrate must be thoroughly clean and dry prior to coating.
- B. Colonnade Base Wash: Remove the existing waterproof coating in its entirety from the cast-iron wash by pressure washing using approximately 3,500psi water with addition of 3% pressure washing additive by volume or as otherwise recommended by the additive manufacturer. The removal of existing paint to bare metal is required. If the coating cannot be fully removed by pressure washing, utilize a biodegradable, water-soluble paint stripper, scraping and/or pressure washing. Substrate must be thoroughly clean and dry prior to coating.
- C. Sealants: remove existing and install new sealants at joints in Colonnade Dado and install new sealant at intersection of Consoles and Base Wash prior to application of new coatings. Refer to Specification Section 07900.

3.2 APPLICATION

- A. Install all materials in strict accordance with manufacturer's installation instructions.
- B. Apply penetrating primer by spray or roller to a minimum thickness of 15 mil, wet film, and allow to dry a minimum of two hours but not until the material turns milky white to clear.
- C. Apply intermediate sealer coat commencing from top of area to be coated proceeding downward encapsulating the Colonnade Dado, Consoles, and Wash in a seamless monolithic system. Allow to dry in accordance with manufacturer's instructions prior to application of the top sealer coat.
- D. Apply top sealer coat commencing from top of area to be coated proceeding downward encapsulating the Colonnade Dado, Consoles, and Wash in a seamless monolithic system. Allow to dry in accordance with manufacturer's instructions prior to application of the top coat.
- E. Apply top coat commencing from top of area to be coated proceeding downward encapsulating the Colonnade Dado, Consoles, and Wash in a seamless monolithic system. Allow to dry in accordance with manufacturer's instructions prior to application of the water repellant overcoat.
- F. Apply water repellant overcoat over the entire area to be coated in accordance with manufacturer's instructions.

3.3 CLEANING

- A. Leave finished work and work area in a neat, clean condition without evidence of spillovers onto adjacent areas.

END OF SECTION